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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,658	01/28/2002	Michael J. Pollack	200285.0689/670U1	3856

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EXAMINER	
LEE, RICHARD J	

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
10/058,658	Pollack
Examiner	**Art Unit**
Richard Lee	2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideratio

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examine

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some* c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). *2, 4*
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. Claims 15 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For examples:

(1) claim 15, line 2, "the infrared type" shows no clear antecedent basis and the particular categorization of something to a "type" renders the claim indefinite; and

(2) claim 28, line 1, before "housing", "the" should be properly inserted in order to provide proper antecedent basis for the same as specified at claim 23, line 4.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, 5, 9, 10, 13, 14, 23, 27, 28, 30, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Qureshi et al of record (5,956,077).

Qureshi et al discloses an inspection method and apparatus for tanks, and the same optical monitoring system as claimed in claims 1, 4, 5, 9, 10, 13, 14, 23, 27, 28, 30, and 31 for transmitting images from a hostile environment within the interior of a sealed chamber to the chamber exterior, the chamber having a wall and an access port extending through the wall (see Figures 2, 4, 5, column 2, lines 41-47), the monitoring system comprising the same flexible,

generally tubular, elongated housing having a distal end, a proximal end and an interior (see 31, 32, 37, 38, 41 of Figures 2 and 8), the housing being made of non-porous, hermetically seal, corrosive resistant material, the distal end of the housing including a sealed window, wherein the window is formed from a material selected from the group consisting of synthetic sapphire, glass, quartz and a polymeric material, wherein the window is secured to the housing by a method selected from the group consisting of brazing, fusion, and an adhesive (see window in front of elements 39, 41, 48-51 of Figure 8), the proximal end of the housing being sealingly secured to the chamber wall at the access port so that the interior of the housing is accessible through the port (see 37 of Figure 2), the interior of the housing including a transmission media for transmitting images of the interior of the chamber obtained through the window from the distal end of the housing to the proximal end of the housing and through the port (see 41 of Figures 2 and 8, and column 3, lines 41-51, column 4, lines 3-16, lines 37-67); a monitor located outside of the chamber and connected to the transmission media for receiving and displaying the recorded images of the interior of the chamber (i.e., 67 of Figure 9, and see column 3, lines 41-51, column 4, lines 3-16, lines 37-67); a video camera (i.e., 41 of Figures 2 and 8) positioned to record images of the interior of the chamber through the window; a sensor (i.e., 41 of Figures 2 and 8) for sensing a parameter of the hostile environment through the window, and an apparatus (i.e., 67 of Figure 9) located outside of the chamber and connected to the transmission media for receiving and processing the sensor signal and displaying a representation of the sensor signal.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2, 11, 18, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Qureshi et al as applied to claims 1, 4, 5, 9, 10, 13, 14, 23, 27, 28, 30, and 31 in the above paragraph (3), and further in view of Stattuck et al (4,591,794).

Qureshi et al discloses substantially the same optical monitoring system as above, but does not particularly disclose wherein the housing comprises a flexible sheath formed of a stainless steel bellows as claimed in claims 2, 11, 18, and 25. The particular use of stainless steel bellows for housing structures associated with borescopes and monitoring of chambers, however is old and well recognized in the art, as exemplified by Stattuck et al (see column 3, line 64 to column 4, line 30). Therefore, it would have been obvious to one of ordinary skill in the art, having the Qureshi et al and Stattuck et al references in front of him/her and the general knowledge of housing structure materials within monitoring systems, would have had no difficulty in providing the stainless steel bellows structure as taught by Stattuck et al for the housing of Qureshi et al for the same well known support and protection of the housing purposes as claimed.

6. Claims 3, 12, 19, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Qureshi et al as applied to claims 1, 4, 5, 9, 10, 13, 14, 23, 27, 28, 30, and 31 in the above paragraph (3), and further in view of Chiodo (4,540,258).

Qureshi et al discloses substantially the same optical monitoring system as above, but does not particularly disclose wherein the housing comprises a flexible polymeric tube as claimed in claims 3, 12, 19, and 26. The particular use of flexible polymeric tubes for housing associated with camera monitoring devices, however is old and well recognized in the art, as exemplified by Chiodo (see 54 of Figure 1 and column 4, lines 48-53). Therefore, it would have been obvious to one of ordinary skill in the art, having the Qureshi et al and Chiodo references in front of him/her and the general knowledge of housing structure materials within monitoring systems, would have had no difficulty in providing the flexible polymeric tube structure as taught by Stattuck et al for the housing of Qureshi et al for the same well known support, protection, and flexible movement of the housing purposes as claimed.

7. Claims 6, 7, 17, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Qureshi et al as applied to claims 1, 4, 5, 9, 10, 13, 14, 23, 27, 28, 30, and 31 in the above paragraph (3), and further in view of Howell et al of record (3,778,170).

Qureshi et al discloses substantially the same optical monitoring system as above, but does not particularly disclose wherein the housing includes a borescope having a viewing end which is aligned with the sealed window, the interior of the housing including a flexible borescope for transmitting images of the interior of the chamber obtained through the window from the distal

end of the housing to the proximal end of the housing and through the port, a monitor located outside of the chamber and connected to the borescope for receiving and displaying images of the interior of the chamber, and wherein the transmission media is comprised of fiber optic bundle as claimed in claims 6, 7, and 17. However, Howell discloses a borescope guide tube as shown in Figure 2, and teaches the conventional use of a fiber optic bundle borescope (i.e., 62 of Figure 2, and see column 2, line 53 to column 3, line 7) having a viewing end which is aligned with a sealed window (see Figure 2), the interior of the housing including a flexible borescope for transmitting images of the interior of the chamber obtained through the window from the distal end of the housing to the proximal end of the housing and through the port (see Figure 2, and column 4, lines 27-49, column 6, lines 32-65), and a monitor (see column 5, lines 12-30) located outside of the chamber and connected to the borescope for receiving and displaying images of the interior of the chamber. Therefore, it would have been obvious to one of ordinary skill in the art, having the Qureshi et al and Howell et al references in front of him/her and the general knowledge of borescopes for transmitting and monitoring images, would have had no difficulty in providing the fiber optic bundle borescope for transmitting and monitoring of images as taught by Howell as part of the chamber monitoring within Qureshi et al for the same well known transmission and monitoring of images from a fiber optic borescope purposes as claimed.

8. Claims 8, 15, 16, 22, 24, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Qureshi et al as applied to claims 1, 4, 5, 9, 10, 13, 14, 23, 27, 28, 30, and 31 in the above paragraph (3), and further in view of Braithwaite et al (US 2002/0116987 A1).

Qureshi et al discloses substantially the same optical monitoring system as above, but does not particularly disclose the followings:

(a) wherein the interior of the housing is provided with a fluid under pressure to control the environment within the interior of the housing as claimed in claims 8, 16, 22, and 29;

(b) wherein the camera is of the infrared type as claimed in claim 15; and

(c) wherein the sensor is selected from the group consisting of temperature sensor, a pressure sensor, an oxygen sensor and a spectra graphic chemical analysis sensor as claimed in claim 24.

Regarding (a) to (c), Braithwaite et al discloses an apparatus and method for measuring extensional rheological properties of a material as shown in Figure 1, and teaches the conventional fluid pressure control of an environment within the interior of a housing, temperature sensors, and the use of infrared cameras for monitoring elements within the housing (see sections [0034], [0039], [0040] of page 3, section [0044] of page 4). Therefore, it would have been obvious to one of ordinary skill in the art, having the Qureshi et al and Braithwaite et al references in front of him/her and the general knowledge of interior environment controls within hostile chambers, would have had no difficulty in providing the infrared camera, temperature sensor, and fluid pressure control system as taught by Braithwaite et al for the interior of the housing of Qureshi et

al for the same well known temperature sensing, infrared imaging, and fluid pressure control of a hostile chamber environment purposes as claimed.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nance et al discloses an apparatus for observing a hostile environment.

Kumar et al discloses an apparatus for measuring pedestal temperature in a semiconductor wafer processing system.

10. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.

RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

7/1/03